



Original Article

Reconsidering Relational Autonomy as an Essential Feature in Environment

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Abstract: Human beings on the earth are facing some severe existential and environmental challenges that require philosophical arguments and explanations. There are many debates, controversies, and arguments about the applications of moral principles in understanding multiple bioethical and environmental phenomena. Contemporary debates on bioethics emphasize the significance of the autonomy of both human beings and the rest of the natural world. Critical observations on the debates and discussions indicate that many philosophical approaches fail to explain these sorts of human and non-human issues. Applying the feminist concept of autonomy known as “relational autonomy” as a lens, this paper explores how we can establish autonomy as a whole in the environment. Relational autonomy is fairly an umbrella term, assigning a scope of related viewpoints and does not express a separate collective idea of autonomy. In medical ethics, this concept is very popular in decision-making factors and solving autonomy debates among medical professionals. This article argues that by specifically adopting the concept of relational autonomy as an essential feature, we can solve some controversy in environmental bioethics too. This research helps to understand human-nature relationships in environmental bioethics from the relational autonomy perspective. In addition, this paper gives us a lesson to consider both human beings and the rest of the elements of nature as intrinsically valuable. Conclusively, this research aims to add a new dimension to bioethics with environmental sustainability.

Keywords: autonomy, relational autonomy, environmentally inclusive bioethics, environmental sustainability

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Introduction: The greatest contributions to science and technology in the 20th century were in medicine, agriculture, and food production¹. As a result of the unprecedented progress in the branches of biological science, our lives have become comfortable and pioneering. Besides, some of the side effects of some of the negative discoveries of science have fallen upon us and we face some ethical questions. In this context, bioethics has emerged². From the mid-twentieth century, bioethics deals with medicine, health care, dietary issues, and more issues of medical ethics³. Furthermore, bioethics gives us the precise direction of how we use these technological developments in our daily lives in healthcare and biomedical sciences². Since the 1960s, ethical issues have become important to people in unprecedented ways⁴. In continuation of this, biomedicine science, and clinical medicine form a revolutionary trend. Organ transplantation, stem cell research, and abortion are common phenomena in today's medical technology.

However, bioethics essentially aims to ensure that the contributions of the biological sciences do not have harmful effects on humans, animals and the environment. The use of animals in laboratory trials and the ethical justification of biotechnology for more protein sources also raise a major ethical question⁵. Alongside, another issue is related which is called environmentally inclusive bioethics. Bioethics should reorient itself as per its unique ecologically comprehensive desires to have the option to resolve issues that have both human well-being and environmental suggestions that either can't or ought not to be tended to in disconnection⁶.

In order to solve these moral debates about bioethics and establish environmentally inclusive bioethics, scientists and moral philosophers introduced several principles and doctrines at different times. Relational autonomy is one of the popular philosophical principles that has been used especially in medical ethics. This principle basically comes from the idea of care ethics that was established by feminist philosophers⁷.

However, this paper argues that this feminist concept can also be used as a multifunctional tool to address some moral issues in different discussions of bioethics and environmental ethics. In addition, this research further focuses on the fact that relational autonomy also gives us a solution to some environmental crises, such as the question, "Do we have responsibility for the future generation?" or "To what extent can we dominate the environment?" With a view to establishing environmentally inclusive bioethics, the idea of relational autonomy may give us a strong answer to these questions.

Methodology: In this article, a narrative and analytic synthesis are employed. Simultaneously, following the qualitative research method, the literature is reviewed systematically to explore relational autonomy and figure out how this feminist concept would be applied appropriately in various discussions of bioethics. The literature and information are gathered from different published books, articles, case studies, reports, online newspapers, etc. The study was done to complete this paper took place between 2023 and 2024.

Discussion:

Bioethics as Environmentally Inclusive

Model: The expression "environmentally inclusive bioethics" seems inessential; clearly, the norms of natural life ought to address relations between humans as well as among humans and non-humans and ought to incorporate among its obligations the upkeep of our normal "life support system" – the natural environment⁶. This idea was initially developed by Van Rensselaer Potter with another blend of knowledge from the sciences and humanities as well⁸. To define bioethics, Potter stated "Bioethics, the Science of Survival"⁸.

Van Rensselaer Potter, in his first book *Bioethics: Bridge to the Future* extended medical ethics concerns, for example, obligation and rational activity to other areas of life, such as ecology. Bioethics, according to Potter, is "the bridge to the future," a bridge

between scientific studies and the humanities as well as a bridge from the ongoing circumstance that we are oblivious to, and not interested in. Potter noticed the interconnectedness of human existence and nature as plainly obvious, considering that we humans are placed in a natural environment, and tried to interface us to wellbeing inside the hospital, yet to all-encompassing life on the planet too⁹.

Ultimately, from Potter's perspective, bioethics incorporates the value of human life with ecological facts¹⁰. In this regard, the idea of environmentally inclusive bioethics is basically formulated. According to this idea, biotechnology, industrialization, urban development, and the use of modern technology in medical science must be sustainable for human and nonhuman life and the whole environment as well. Subsequently, the declaration of the United Nations Millennium Development Goals (SDGs) held in 2000 clearly mentioned to ensure environmental sustainability¹¹. The same context of environmental sustainability is also mentioned in the Sustainable Development Goals (SDGs)¹².

Notably, this environmentally inclusive bioethics is the model to reach this goal and ensure environmental sustainability. In order to establish environmentally inclusive bioethics, scientists, philosophers, and scholars from different fields introduced us to different theories and principles¹³. In moral philosophy, from normative ethics to modern philosophical principles are used from the beginning, and some principles give us sort of effective solutions, and some give us partial solutions to address the issue^{13,14}. Like other theories, this article uses relational autonomy as a lens to address several bioethical issues from a philosophical perspective. Indeed, this paper argues that by considering relational autonomy as a means of environmentally inclusive bioethics, we can ensure environmental sustainability.

Relational Autonomy: A Critical Exposition:

Autonomy is nearly identical to human dignity, and it represents an essential quality in the

discussion of moral philosophy that values people. Earlier, in normative ethics, the term "autonomy" was only used as human inner characteristics¹⁵. Various philosophers of various periods like Plato, Aristotle, Kant, Mill, Beauchamp and Childress offer their opinions regarding the idea of autonomy. As per their notions, the principle of autonomy has been connected with liberty and the potential for human improvement as indicated by personal interests and preferences. Nevertheless, in contemporary moral philosophy, the most remarkable idea of autonomy that feminist philosophers has establish "relational autonomy". The main goal of feminist philosophers is to establish an alternative to the traditional definition of autonomy that is gender-neutral.

How to Understand the term "Relationality"?

Living with others and recognizing their interconnectedness is part of being relational. Being focused, engaged, grounded, modest, kind, generous, and liberal are all characteristics of our cooperation with others¹⁶. This term is used in every situation, including our family life, our environment, business, politics, and so on. We can understand the idea of relationality through some examples:

In a family, every member is connected to a relationship with each other. When parents work hard to earn money, it is not just for their survival. Their hard work is also connected to maintaining their families¹⁷. In addition, after birth, an institutional education of a child serves multiple purposes, including his/her future. For example, when someone studies at a school, college, or university, the goal of their education is for both their family and the country. A student will be able to support their family if they study properly and receive good scores in exams. Through the knowledge they acquire from educational institutions, they can play a crucial role in serving both the nation and its citizens¹⁸. Therefore, acquiring knowledge for a student is connected to other circumstances. The equivalent happens when somebody in a family is sick, and the remainder of the family members are stressed

over him. As a result, a family always plays a relational function in all events and feelings¹⁷.

Understanding the relationship between the various elements of the environment is the most significant idea of knowing the concept of relationality. If we look closely, we will observe that each element of nature is connected¹⁹. For example, human beings can't exist without association with different components of nature²⁰. Humans are regarded as superior natural creatures by us²⁰. However, without the oxygen that we get from plants, these humans cannot survive in the environment²⁰. Similarly, the plant accepts harmful carbon dioxide produced by humans to maintain its existence¹⁹. Humans as well as other animals are straightforwardly connected to plants in the activity of inward breath. A food chain binds all living entities together in nature²⁰. The word food chain refers to a natural order of relationships within a food web, beginning with organisms that generate food and ending with apex predators or decomposer species. Additionally, this chain demonstrates the transformation of energy and nutrients from one living entity to another. As a result, all living things are interconnected in a chain. The integrity of nature will suffer if we dominate it indiscriminately or pull down any part of the natural chain²¹. So, human beings and the rest of nature are related to each other.

These occurrences also occur in all professional sectors. All sectors of a government like education, economy, medical, defense, etc., are interconnected with each department. Even people from different professions or societies—like doctors, engineers, teachers, businessmen, workers, farmers, and drivers—are mutually connected. Everyone depends on others and without mutual relationships, no particular professional can function properly. This is called professional ecology, and to run any professional sector precisely, everyone has to maintain it²².

The relational issues can be assumed from the examples above. Being relational means having a reciprocal relationship. That means nothing is possible alone; it requires joint

production. Relational autonomy talks about the same as in these instances. Autonomy is also a reciprocal matter²³. As humans, when we interact with other humans, we have to think about the autonomy of the other person as well. If someone thinks about his/her own autonomy, the ultimate goal of autonomy will not be ensured. This is also true for the relationship between human and nonhuman beings and the whole environment as well²⁰. All objects in this universe are intrinsically connected and dependent on each other. Likewise, relational autonomy focuses on interdependence instead of independence²⁴. When all humans think about the autonomy of nonhuman beings and all functions of the environment, the ultimate autonomy will be established. This is the lexical analysis of relational autonomy.

Relational Autonomy: Philosophical Viewpoints: The idea of relational autonomy was initially influenced by the thought of “care ethics”, which holds that the caring issue is equally relevant in bioethics. Carol Gilligan introduced the concept of care ethics first to the public in her 1982 book *In a Different Voice*²⁵. Further, this concept was developed by some feminist philosophers including Nel Noddings and Van den Hoven²⁵.

The word “relational autonomy” does not express a separate collective idea of autonomy; however, it is fairly an umbrella term, assigning a scope of related viewpoints²⁶. According to this idea, both autonomy and relationality are notable features of human individuality that should be assumed together. It represents a free thought of the social idea of individuals' lives. These points of view argue that human beings are born into a social environment that is defined by some characteristics such as culture, religion, ethnicity, nationality, gender, age, politics, economic and social class. In medical ethics, to ensure a patient's autonomy, relational autonomy is a well-known principle as it considers patients' social identities. This principle also plays a central role in decision-making for clinicians⁷.

Biotechnology from a Relational Autonomy Perspective:

The world's food production and reserves are not enough compared to the rate at which the population is growing worldwide. That's why biotechnology began to be developed in agriculture to meet food and protein shortages²⁷. Notable among them are various GM foods, such as: biofuel, Bt brinjal, Bt potatoes (Monsanto), Bt soybeans, virus-resistant squash (Asgrow), *Bacillus thuringiensis* (Bt) corn/maize (Ciba-Geigy), papaya, cotton and so on²⁸. Now, there is much debate among ethicists as to whether such uses of biotechnology are morally acceptable. However, many philosophers and theologians claim that human dominance over the laws of nature is not unethical²⁹. As humans are autonomous beings, they have the freedom to change the natural roadmap according to their needs. Because, as per the traditional idea of autonomy, all men are independent. But relational autonomy demands something different. It focuses on another issue related to biotechnology which is the risk to human health³⁰. If human beings act as they freely wish, and as a result of that free action human beings themselves suffer, then the real purpose of autonomy will be failed. It would help to clarify the point by referring to some harmful examples of biotechnology.

Studies done by the Codex Alimentarius Commission (CAC) approved by the World Trade Organization (WTO) claim that most of the GM-food cause food toxicity and allergenicity on the human skin³¹. Besides, GM foods contain ingredients that contain extra nutrients and toxic ingredients. After all, the side effects of genes introduced into GM food are a threat to human health³². In addition, GM soybeans can cause specific inflammation and allergic reactions in the consumer's skin³³. GM-produced papaya, corn, and other crops contain sufficient amounts of allergenic substances³¹. Such unexpected intrusions are causing multi-faceted health problems including reducing the consumer's birthrate and sexual and physical ability³³. Even regular consumption of BT brinjal can cause liver damage and reproductive disorders³⁴. Consuming BT brinjal causes serious adverse effects on the reproduction of mammals, fish

and insects³⁵. biotechnology is the use of Bovine Somatotropin (bST) hormone in dairy cows for the purpose of producing more milk. Food and Agriculture Organization (FAO) and World Health Organization (WHO) claimed that bST can be used without any health risks to consumers³⁶. But some other research has found out that milk from bST-supplemented cows has an allergic effect on the human body³⁷. Simultaneously, bST-used cow's milk increases the risk of high blood pressure, excess fat production, neurodegenerative disorders, and breast and prostate cancer³⁷.

Therefore, the use of biotechnology never expresses human autonomy in a positive sense. The autonomy or freedom we talk about for human beings is ultimately leading us in the wrong direction. But relational autonomy can lead us to run in the precise direction. Notably, what relational autonomy means is that individual freedom is not just unilateral. It also involves other issues related to biotechnology such as the tremendous health risks to the human body. Relational autonomy can make us cautious about the use of biotechnology. Humans have autonomy or freedom of will. But relational autonomy teaches that freedom is related to the surroundings. The use of technology that slowly diminishes human's ability to live healthily can never be acceptable. Technological development that causes reproductive disorders and makes future generations insecure about survival will never be sustainable development³⁸. No matter how much it helps in reducing food shortages. Relational autonomy here guides us to think about both the present and the future. Thinking about the future is one of the key points of sustainability³⁹. If we manage the activity of science properly, besides considering the risks to human health in the field of biotechnology, then we will know how to use our own autonomy properly. In this regard, GM foods developed by biotechnology that are beneficial to human health should be consumed. And those that are harmful to human health cannot be accepted. Thus, if we consider relational autonomy in the application of biotechnology, then we will be on the path toward environmental sustainability.

Environmental Crisis from a Relational Autonomy Perspective: Environmental crisis is one of the crucial global phenomena in the recent world. This crisis is a matter of headache in today's technology-based lifestyle. Gerold Becker compared the negative effects of biotechnology to nuclear power⁴⁰. Nuclear power can be beneficial to humans, but when used improperly or accidentally, it destroys humanity and the integrity of nature⁴¹. Besides, from the last century, the world has seen many environmental catastrophes like global warming, floods, deforestation, drought, desertification, rising sea levels, acid rain, and the extinction of various species⁴². Many scientists, environmentalists, and scholars from different fields have found several causes of the environmental crisis. But from a philosophical point of view, the cause of this disaster is mainly the defective human-nature relationship⁴².

However, from the past to the present, scientific theories and other moral theories are trying to give us a solution to this crisis. However, most solutions are viewed from an anthropocentric perspective. The anthropocentric viewpoint holds that humans have the supreme position at the pinnacle of the natural order⁴³. This standpoint ultimately creates a hierarchy between humans and nature as well as other species. In this case, relational autonomy can assist to create a balanced relationship between humans and the whole environment. In the sense of relational autonomy, not only human beings but also the whole environment is intrinsically valuable. Human autonomy at the same time is closely connected with its behavior towards the environment. So human beings have no right to behave arrogantly towards nature⁴⁴. The autonomy of human beings will not be protected and environmentally inclusive bioethics will not be established if we dominate nature indiscriminately. This point can be explained with reference to some examples.

Coming first to the context of biotechnology, one thing is clear that biotechnology is in opposition to environmentally inclusive bioethics. Because some use of biotechnology

is responsible for the environmental crisis. Some scientific research reports such as: Henning Steinfeld states in his comprehensive study report under FAO's supervision that livestock farming generates tremendous amounts of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and ammonia (NH₃)⁴⁵. Besides, livestock farming is responsible for 10.8% of global greenhouse gases⁴⁶. Even livestock farming accounts for 70% of the pollution generated from agriculture sector⁴⁷. Furthermore, 75% of the greenhouse gas emissions from livestock farming come from grazing land which contributes to global warming⁴⁷. Other studies have found that livestock farming is "the most significant sectoral source of water pollution, causing eutrophication, dead zones in coastal regions, and coral reef damage..."⁴⁵. Bovine Somatotropin (bST) is another example of the negative environmental effects of biotechnology usage. The toxins substances produced by bST-applied cow excrement are very harmful to soil and the environment⁴⁸. From this information, it can be said that biotechnology undermines the autonomy of the environment and also violates the structure of organic wholeness.

Another claim against human beings is that humans are responsible for the destruction of the environment's ecosystems⁴⁹. Human beings have invented biotechnology to ensure food security for human society. But they have forgotten that the right to food belongs not only to human beings but to the entire animal world. Some reports say that foods and crops that are being produced as a result of advances in biotechnology are extremely harmful to other animals⁵⁰. Biotechnology is also responsible for the extinction of some species of insects and birds⁵¹. Some plants are gradually disappearing from the environment along with the extinction of birds and insects⁵². Even many forests are losing their biodiversity due to the lack of proper pollination of plants⁵³. Again, as an example of the advancement of technology, we are using pesticides on cropland to kill various harmful insects⁵⁴. These insects are the food of rats⁵⁵. Again, snakes survive by eating these rats⁵⁶. That is, the whole system is bounded by a food chain.

But the technology-based agriculture policy hampers this entire ecosystem. Besides, harmful pesticides and fertilizers applied to the land during rains get mixed with different water sources like rivers or canals. As a result, aquatic ecosystems are destroyed too⁵⁶. Apart from biotechnology, man-made factors such as industrial pollution, river management, dumping of waste in the sea, construction of mega projects by constructing bridges or dams on rivers, construction of nuclear plants, etc. are also responsible for environmental degradation⁵⁷.

With these discussed examples, we understand that human beings bring about their own destruction by arbitrarily ruling over nature. This anthropocentric attitude teaches human beings to dominate nature. But relational autonomy suggests that human beings do not have the right to violate others' autonomy such as the autonomy of non-human beings and the whole environment⁵⁸. Without considering the autonomous values of nature, we cannot establish environmentally inclusive bioethics. Relational autonomy values the autonomy of nature. An example may be mentioned here as: Eric Katz, in his book *Nature As Subject* argues that the whole of nature is an "autonomous subject"⁵⁹. If we analyze Eric Katz's argument critically, he basically referred to the concept of relational autonomy. This argument has focused on the fact that nature should not be used by humans as a means for their own goals, rather this should be formed on the principle of autonomy. Therefore, the fact is not one-sided, but rather reciprocal.

So, relational autonomy argues that a highly technology-based lifestyle and anthropocentric attitudes of human beings are mainly the root causes of the environmental crisis. The ignorance of human beings regarding ecology violates the whole autonomy of nature. Therefore, relational autonomy holds that knowledge of relational approaches is essential in all aspects of bioethics. The naive concept of autonomy gives human beings access to nature, and the relational autonomy also helps to identify to what extent they can dominate nature. In addition, relational

autonomy gives us lessons regarding responsibility for the future generation. If we continue the relational attitudes towards the environment, we can give our future generation a habitable planet. Our present lifestyle has had a tremendous impact on the environment, and relational autonomy suggests that we have to control this lifestyle keeping future generations in our concerns. Human beings need progress, updated lifestyle, and economic development. However relational autonomy dictates that progress and development must correspond to environmental sustainability⁶⁰. This idea also teaches us to admit that besides human beings, other elements of this environment are intrinsically valuable. That means relational autonomy ultimately focuses on the non-anthropocentric viewpoint where nature is considered "as a whole". It may help to create natural wholeness and protect environmental integrity. In other words, relational autonomy does not create any demarcation line between human beings and the rest of the elements of the environment.

Conclusion: This paper considers relational autonomy as a lens to address some bioethical problems like the ethics of using biotechnology, and environmental crises from a different perspective. This research has tried to show some analyses of that from a broader perspective in bioethics in order to establish environmentally inclusive bioethics.

Firstly, biotechnology is a great blessing to us, but also a curse from the perspective of relational autonomy if we address its negative effect in isolation. Thus, relational autonomy can help us to face the challenges of using biotechnology.

Secondly, the problematic human-nature relationship can be reduced by considering relational autonomy as a philosophical method. Our traditional scientific and philosophical theories hold that only human beings are intrinsically valuable while all other elements of the environment like animals, plants, rivers, mountains, etc. are for the use of human beings, which indicates that they are instrumentally valuable. But from the relational

autonomy perspective, this approach is fallacious. Relational autonomy holds that all elements of the environment are intrinsically valuable. Without considering their values, the autonomy of human beings will not be established. Because all organic and inorganic elements of the environment are interdependent and interconnected with each other. So, the philosophical viewpoint of relational autonomy is not anthropocentric, but rather non-anthropocentric. Indeed, relational autonomy teaches human beings to treat non-human beings and the rest of the elements of the environment as ends but not as means.

Therefore, the concept of relational autonomy suggests that we should recognize the reciprocal relationship of all elements of nature. The more we recognize this, the more knowledge we will achieve. This knowledge will help us to construct environmentally inclusive bioethics with sustainability.

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